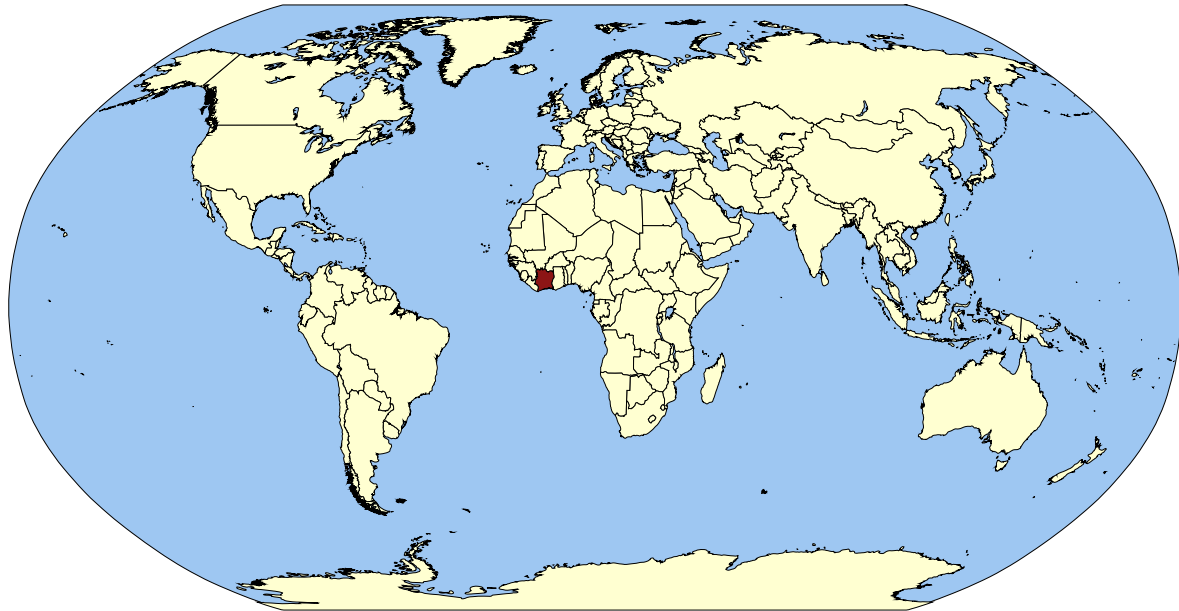


Cote d'Ivoire



A Historical View into Cote D'Ivoire

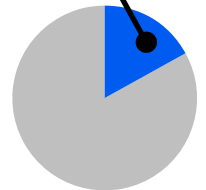
Cote d'Ivoire, a nation on the Gulf of Guinea in West Africa, is continually maligned by widespread *schistosoma* infections that have not, at present, been addressed by national control programs. A former French colony that experienced rapid economic growth and dominance in West Africa with a productive coffee and cocoa export, the country has experienced political instability and civil unrest since the economy began to recede in the 1980's, and significant price drops on coffee and cocoa led Cote d'Ivoire into long-lasting economic instability. Since the death of Félix Houphouët-Boigny, Cote d'Ivoire's first president who led Cote d'Ivoire to independence from French colonial rule in 1966 and continued to rule the country until his death in 1993, the country has experienced numerous coups d'etat and a civil war that began in 2002. While the First Ivorian Civil War officially ended in 2007, tensions between political factions have remained high and outbreaks of violence continue to impede political and civil stability [1].

Schistosomiasis in Cote d'Ivoire [7]

Almost **4 million** people required treatment for schistosomiasis in 2013.

17% of the population requires preventive chemotherapy for schistosomiasis

62% of the population requiring treatment for schistosomiasis are school-age children.



Overview of Cote d'Ivoire [8]

- » Population in 2015: 23,295,302
- » Official Language: French
- » Capital: Yamoussoukro
- » Republic
- » Percentage of Population with Access to Improved Drinking Water in 2012: 80.2%
- » Percentage of Population with Access to Improved Sanitation in 2012: 21.9%

The Perfect Environment

In light of a recent history of political and social upheaval, the treatment and eradication of schistosomiasis in Cote d'Ivoire has not as yet been prioritized. Small scale studies on the transmission and prevalence of schistosoma have shown a consistently high prevalence hovering around 40-50% [2]. The geography of Cote d'Ivoire contributes to the sustained disease status as endemic; the region's tropical climate is suitable to the intermediate snail hosts of *S. haematobium*, *Bulinus truncates* and *Bulinus globosus*, and the intermediate host of *S. mansoni*, *Biomphalaria pfeifferi*. *Biomphalaria pfeifferi*, the reservoir of *S. mansoni* which is also known to infect rodents and primates, is found in lower densities than *B. truncates* and *B. globosus*, especially in areas where annual rainfall is lower [3]. Cote d'Ivoire is at the interface of tropical rainforest in the south near coastal lagoons and savannah in the North, with the Bandama River running from north to south [4]. In 1979, a large hydroelectric dam was built, and extensive irrigation schemes and water resource schemes that have expanded intermediate host snail habitats have led to increased schistosomiasis transmission [4,3]. Additionally, insecurity may have displaced infected human populations into new areas where transmission can be established. In general, cases are most abundant along major river valleys, in irrigated areas, near seasonal or permanent ponds and lakes, and around water resource development schemes [4]. Approximately 68% of the population is involved in agriculture, and Cote d'Ivoire is the world's leading producer and exporter of cocoa beans and a significant producer and exporter of coffee and palm oil [5]. Deforestation and water pollution from sewage and industrial and agricultural effluents are major environmental concerns [5]. Cote d'Ivoire shares borders with Liberia, Guinea, Mali, Burkina Faso, and Ghana. Both Mali and Ghana have endemic *schistosoma* infection.

Recent Control Efforts

Very little data on disease prevalence and intensity are available. Schistosomiasis Consortium for Operational Research and Environment (SCORE) implemented a project in December 2008 to last until December 2015 with the goal to investigate the impact of different schistosomiasis treatment strategies, specifically community-wide treatment versus school-based treatment, with the Schistosomiasis Control Initiative (SCI) delivering treatment beginning in 2013. Integrated Control of Schistosomiasis in Sub Saharan Africa (ICOSA) designated Cote d'Ivoire as a "Group One" country since 2010, prioritizing control due to the fact that no prior control efforts have been fully carried out. As part of the SCORE project, 75 villages in western Cote d'Ivoire are receiving treatment with outcomes monitored annually. By 2014, the ICOSA program planned to have mapped all 41 districts for schistosomiasis. Based on prior surveys, it is expected that the outcome of mapping will demonstrate endemicity of the disease throughout the whole country. Assuming this, the ICOSA plans to target 12% of the total population representing individuals in the most highly endemic areas for treatment [6].

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